UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,534	01/27/2004	Geoffrey Elliott	MS1-2679US	2543

22801 7590 03/13/2007		EXAMINER	
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SPOKANE, WA 99201		ART UNIT	PAPER NUMBER
		2179	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/13/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/765,534	ELLIOTT, GEOFFREY
	Examiner	Art Unit
	Rashedul Hassan	2109

-- The *MAILING DATE* of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*; 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-21_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-21_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _1/27/2004_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 17-19 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Claims 17-19 are directed to a replicated data store. A replicated data store in the broadest reasonable interpretation can be interpreted to constitute nothing more than a collection of data. According to a publication titled "Introduction to Windows Peer-to-Peer Networking" by Microsoft Corporation, a replicated store is the set of records associated with a graph that are securely published and synchronized between all the members of a group in a peer-to-peer network. The replicated store represents the view of the group data, which should be the same for all group members (page 21, lines 23-27). Given the above definition, a replicated data store as claimed constitutes mere collection of data and hence considered to be non-functional descriptive material. Non-functional descriptive material is considered to be non-statutory even if claimed in combination with a physical medium since it does not impart any functionality to the computer. Hence the claims have been rejected for being directed to non-statutory subject matter under the meaning of 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,2,4-11,13-18,20 and 21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Goodisman (US 6,330,006 B1) in view of Microsoft Publication

"Introduction to Windows Peer-to-Peer Networking".

Claims 1,2,8-11,17,18, 20 and 21 are directed to synchronizing user

interfaces on peer machines in a peer-to-peer network. In particular, data

binding is used to ensure that data sources and corresponding user interface objects

remain mutually synchronized in each peer machine. Peer-to-Peer networking,

specifically peer graph technique is used to propagate data records between the

networked computers to ensure data source objects remain mutually synchronized in

all peer machines across the network. Thus the invention is directed in embodiments

to an N to N replicated data store and presentation.

Goodisman teaches utilizing data binding technique for synchronizing interface display objects (204 controlled by object 304 in Fig. 3) with underlying data contained in data source objects (308 in Fig. 3). He teaches how to bind an interface display object with an underlying data source object so that any change in any one of them can be communicated to the other in order to achieve synchronization (Summary of the Invention, also see Fig. 2-3 and relevant discussion under the heading "Design-Time Binding" and "Run-Time Binding in columns 5-8). However, Goodisman does not teach synchronizing user interfaces on a "plurality of peer machines" within a "peer-to-peer" network. He does not teach propagating data source objects between peers using peer graph in order to achieve synchronization. In short, Goodisman is missing some essential limitations, a "peer-to-peer" network and synchronization between the user interfaces on a plurality of peer machines on that network using peer graph.

However, a Microsoft publication "Introduction to Windows Peer-to-Peer Networking", published prior to the instant application teaches using a Peer-to-Peer network that utilizes peer graph technique for synchronizing data between peer machines. It teaches that The Graphing component of a peer-to-peer network is responsible for maintaining a set of connected nodes known as a graph and providing flooding and replication of data across the graph. The Graphing component uses the Flood & Synchronization, Store, and Graph Maintenance subcomponents (page 6). It further teaches that a peer graph, or graph, is a set of nodes that are multiply connected to form a coupled network of nodes for the purposes of propagating data in the form of records or point-to-point data streams. A peer

graph is built and based on flooding. Flooding is the process of propagating a record to all

users connected to a graph. A flooding protocol is used to do the following:

Propagate the addition of new records to all the nodes of the graph.

Propagate the updates of changed records to all nodes of the graph.

Propagate the deletion of deleted records to all the nodes of the graph.

In addition, a synchronization process ensures that peers have the same set of records,

which can result in the flooding of more records (page 13). It also teaches replicated

store wherein the replicated store is the set of records associated with a graph that are

securely published and synchronized between all the members of the group. The

replicated store represents the view of the group data, which should be the same for all

group members (page 21).

Therefore, it would have been obvious for a person of ordinary skill in the art at

the time of the invention to combine the data binding technique taught by Goodisman

with the graphing technique of peer-to-peer networking taught by the Microsoft

publication in order to provide an improved and simplified mechanism for synchronizing

user interface elements over a peer-to-peer network. The motivation for the combination

would have been to harness the various benefits of peer-to-peer networking for shared

activities (Microsoft publication, pages 1-3) as well as to simplify the synchronization

problem of user interface objects and the underlying data using "data binding" technique

to avoid potential for error where an application programmer is required to write code to

ensure such synchronization (Goodisman, Background of the invention, column 2 lines

4-9).

For claims 4 and 13, Goodisman further teaches binding the display object on the

first machine to the data source object comprises subscribing by the display object to

notification of a change in one or more properties of the data source object (column 7

line 66 to column 8 line 6).

For claims 5 and 14, Goodisman further teaches providing a notification interface

(304 in Fig. 3) by the display object to receive notification of a change in one or more

properties of the data source object, and wherein notifying the display object from the

data source object that a change in the data source object has occurred comprises

calling of the notification interface by the data source object (Fig. 3, column 7 lines 31 –

column 8 lines 64)

For claims 6,7,15 and 16, the Microsoft publication teaches using peer-to-peer

network to allow users to engage in a group interaction session over the network

sharing media items (Sharing Your Experience, page 2).

Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Goodisman (US 6,330,006 B1) in view of Microsoft Publication "Introduction to Windows

Peer-to-Peer Networking" and further in view of Reilly.

Claims 3 and 12 are directed to employing a model of object persistence for

extracting data from received records to create an object from the data of the received

record. Neither Goodisman nor the Microsoft publication explicitly mentions using a

model of object persistence for this purpose. However, Reilly teaches object

serialization, which uses a model of object persistence, to take an object's state and

convert it to a stream of data for propagation so that the object can be restored at a later

time, and even a later location. He teaches that with persistence, an object can be

moved from one computer to another, and have it maintain its state (page 1). Therefore,

it would have been obvious for a person of ordinary skill in the art at the time of the

invention to combine the teachings of both Goodisman and the Microsoft publication

with that of Reilly in order to arrive at the instant invention. The motivation for employing

a model of object persistence would have been to easily move an object from one

computer to another having it maintain its state (Reilly, page 1).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Goodisman (US 6,330,006 B1) in view of Microsoft Publication "Introduction to Windows

Peer-to-Peer Networking" and further in view of Eriksson (PeerNet: Pushing Peer-to-

Peer Down the Stack).

For claim 19, neither Goodisman nor the Microsoft publication explicitly mentions

that the peer-to-peer networking module implements the peernet protocol. However,

Eriksson teaches peernet protocol for a peer-to-peer based network layer for large

networks that implements a separation between address and identity in the context of a

network protocol in order to avoid scalability issues. Therefore, it would have been

obvious for a person of ordinary skill in the art at the time of the invention to combine

the teachings of both Goodisman and the Microsoft publication with that of Eriksson in

order to arrive at the instant invention. The motivation for using a peernet protocol would

have been to make the network layer: a) minimize the need for manual configuration, b)

avoid centralized solutions and node specialization in favor of distributed and peer-to-

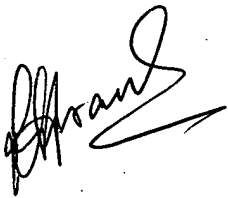peer solutions, and c) localize control overhead (Eriksson, page 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rashedul Hassan whose telephone number is 571-272-

9481. The examiner can normally be reached on M-Th 7:30AM-5PM EST and Alt Fri

7:30AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey Stucker can be reached on 571-272-9821. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

(Rashedul Hassan)

JEFFREY STUCKER
SUPERVISORY PATENT EXAMINER